

CLAIMS

We claim:

- 5 1. An eyewear insert for protecting a wearer's eyes, comprising: a flexible or semi-rigid anatomically-molded inner liner comprising a front surface that closely contacts an inner surface of an eyewear frame or lens, and a back surface that substantially contacts skin around a wearers eyes, so that one or more deadspaces are created between said eyewear frame or lens and said wearer's eyes, by substantially filling the gap between said eyewear frame or said lens and
10 said skin around a wearer's eyes, wherein said liner does not comprise face foam and wherein said inner liner is sized for attachment to an inner surface of an eyewear frame or co-molded as part of an eyewear frame.
2. The eyewear insert of Claim 1, wherein said insert comprises a vent that channels
15 airflow through said deadspaces.
3. The eyewear insert of Claim 2, wherein said wherein said vent comprises a filter-like material.
- 20 4. The eyewear insert of Claim 1, wherein said inner liner is made of a durable, flexible material for accommodating a plurality of face sizes.
5. The eyewear insert of Claim 1, wherein said inner liner is made of a durable, semi-rigid material for accommodating a single face size.
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6. The eyewear insert of Claim 1, wherein said insert is retrofitted to an existing eyewear.
7. The eyewear insert of Claim 1, wherein said insert is releasably attached to an
30 eyewear frame by a means selected from the group consisting of screws, Velcro, clips, and temple slip.

8. The eyewear insert of Claim 1, wherein said insert is permanently attached to an eyewear frame.

5 9. The eyewear insert of Claim 1, wherein said insert is configured to fit within an eyewear frame comprising side windows.

10. The eyewear insert of Claim 1, wherein said insert is configured to fit within an eyewear frame comprising prescription lenses of any thickness.

10 11. The eyewear insert of Claim 2, wherein said vent is an indirect vent comprising a plurality of upper baffled vents and a plurality of lower baffled vents.

12. The eyewear insert of Claim 2, wherein said vent is a direct vent comprising a plurality of upper vents and a plurality of lower vents.

13. The eyewear insert of Claim 11, wherein said baffled vents of said insert comprise staggered vent grooves for forcing incoming air to make a ninety degree turn before entering said deadspaces.

20 14. The eyewear insert of Claim 2, wherein said vent comprises venturi tunnels.

15. The eyewear insert of Claim 1, wherein said back surface of said insert comprises a serrated pattern for reducing sweating and discomfort.

25 16. The eyewear insert of Claim 1, wherein said front surface of said insert comprises a concave groove permitting air to pass between said deadspaces.

17. The eyewear insert of Claim 1, wherein said insert is made of thermoplastic rubber.

18. Protective eyewear comprising an eyewear frame having temple bars or a strap, and the eyewear insert of Claim 1.

19. The protective eyewear of Claim 18, wherein said eyewear frame and said insert are made of a durable, flexible material suitable for accommodating a plurality of face sizes by flattening the eyewear frame and insert, upon spreading said temple bars.

20. The protective eyewear of Claim 18, wherein said eyewear frame is made of a plastic material.

21. The protective eyewear of Claim 20, wherein said plastic material is GRILAMID.

22. The protective eyewear of Claim 18, wherein said eyewear frame comprises a vent that channels airflow through said deadspaces.

23. The protective eyewear of Claim 18, wherein said eyewear frame comprises a front surface and a back surface, and wherein said back surface of said eyewear frame comprises a concave groove permitting air to pass between said deadspaces

24. The protective eyewear of Claim 18, wherein said eyewear frame comprises a single aperture suitable for use with a single shield-like lens.

25. The protective eyewear of Claim 18, wherein said eyewear frame comprises two apertures suitable for use with two lenses.

26. The protective eyewear of Claim 18, wherein said eyewear frame comprises four apertures suitable for use with two main lenses and two side lenses.

27. The protective eyewear of Claim 18, wherein said temple bars of said eyewear frame comprise a means for adjusting temple length.

28. The protective eyewear of Claim 18, comprising a means for panoramic angle adjustment located between said temple bars and said eyewear frame, within said temple bars or within said eyewear frame.

5 29. Protective eyewear comprising at least one lens, an eyewear frame having temple bars or a strap, and an eyewear insert for protecting a wearer's eyes, comprising: a flexible or semi-rigid anatomically-molded inner liner comprising a front surface that closely contacts an inner surface of an eyewear frame or lens, and a back surface that substantially contacts skin around a wearers eyes, so that one or more deadspaces are created between said eyewear frame
10 or lens and said wearer's eyes, by substantially filling the gap between said eyewear frame or said lens and said skin around a wearer's eyes, wherein said liner does not comprise face foam and wherein said inner liner is sized for attachment to an inner surface of an eyewear frame or co-molded as part of an eyewear frame.

15 30. The protective eyewear of Claim 29, wherein said at least one lens is polarized.

31. The protective eyewear of Claim 29, wherein said at least one lens provides at least 95% protection from harmful UVA and UVB rays.

20 32. The protective eyewear of Claim 29, wherein said at least one lens filters at least 95% of the harmful high-energy visible light.

33. The protective eyewear of Claim 29, wherein said at least one lens transmits from 12% to 98% visible light.

25 34. The protective eyewear of Claim 29, wherein said at least one lens is made of a plastic material.

35. The protective eyewear of Claim 34, wherein said plastic material is selected from
30 the group consisting of CR39, polycarbonate, polyurethane, and MELANITE.

36. The protective eyewear of Claim 29, wherein said at least one lens is made of a glass.

5 37. The protective eyewear of Claim 29, wherein said at least one lens is a prescription lens.

38. The protective eyewear of Claim 29, wherein said at least one lens is a double-paned lens.

10 39. The protective eyewear of Claim 29, wherein said at least one lens comprises an antifog means.

40. The protective eyewear of Claim 29, wherein said at least one lens is interchangeable.

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41. The protective eyewear of Claim 29, wherein said eyewear frame is substantially hidden behind said at least one lens.